Nanoscale Electrochemical Machining

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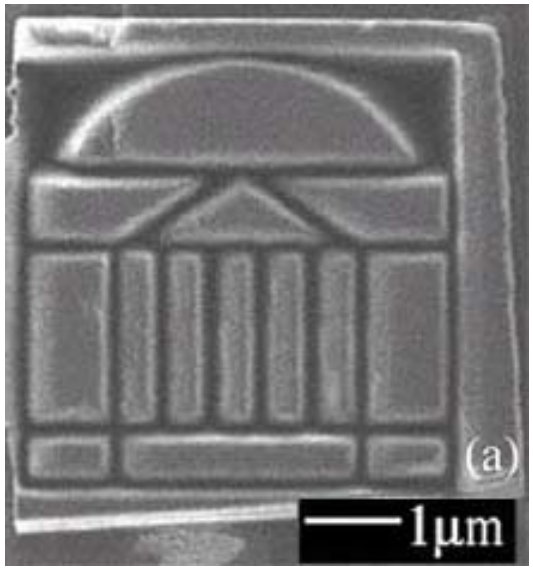
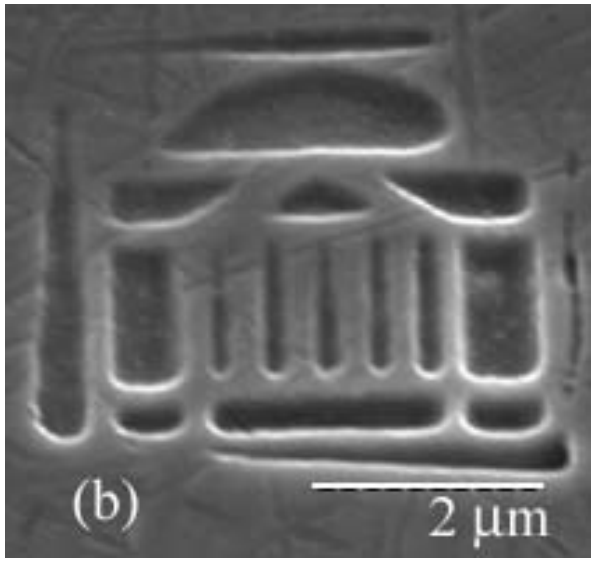


FIB-fabricated tungsten tool

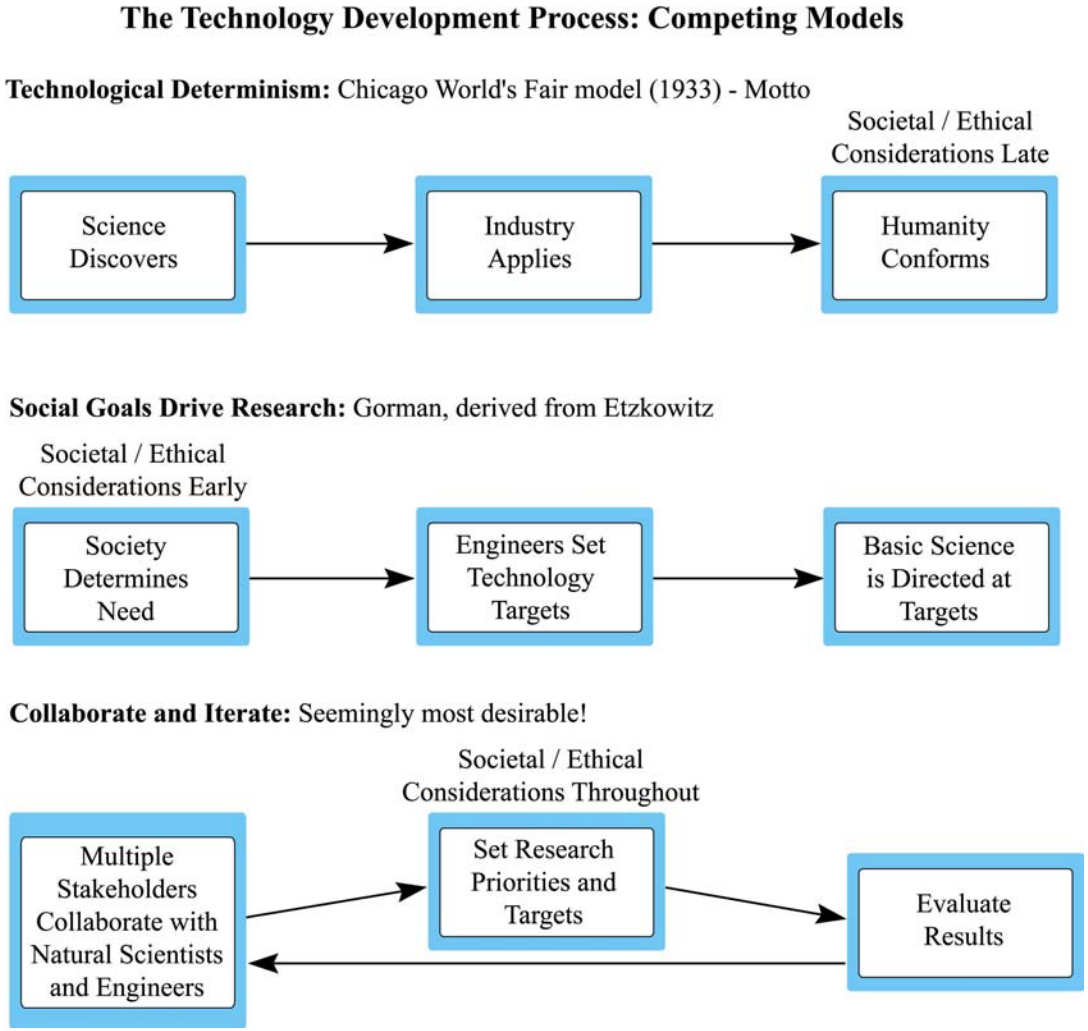


Electrochemically machined pattern in Nickel, 2 ns pulse

Major advantages:

* *Parallel Printing of Complex "Stamp"*
* *High aspect ratio, controllable depth patterns*
* *Three dimensional relief (feature replicates tool)*
* *Sequential, aligned etching / deposition possible*

Understanding Societal / Ethical Implications of Nanotechnology



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* *Collaboration with NSF NIRT program.*

* *How does nanotechnology research change when its societal impact is considered?*

* *Cognitive scientist Mike Gorman and materials scientist James Groves*